SECTION 01 00 00
GENERAL REQUIREMENTS

ADDENDUM NO.2 – MARCH 19, 2009

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SECTION 01 00 00
GENERAL REQUIREMENTS

1.1 GENERAL INTENTION

A. Contractor shall completely prepare site for building operations, including demolition and removal of existing structures, and furnish labor and materials and perform work for Acute Care Patient Floor, Building 200, 8th. Floor, as required by drawings and specifications.

B. Visits to the site by Bidders may be made only by appointment with the Medical Center Project Engineer.

C. Time for Completion: The duration of this project as shown on Drawings and described in Specifications, will be 365 days for completion and should be reflected as such.

D. Offices of Hammel, Green and Abrahamson, Inc., 333 East Erie Street, Milwaukee, WI 53202, as Architect-Engineers, will render certain technical services during construction. Such services shall be considered as advisory to the Government and shall not be construed as expressing or implying a contractual act of the Government without affirmations by Contracting Officer or his duly authorized representative.

E. All employees of general contractor and subcontractors shall comply with VA security management program and obtain permission of the VA police, be identified by project and employer, and restricted from unauthorized access.

F. Prior to commencing work, general contractor shall provide proof that a OSHA certified “competent person” (CP) (29 CFR 1926.20(b)(2) will maintain a presence at the work site whenever the general or subcontractors are present.

G. Training:

1. Beginning July 31, 2005, all employees of general contractor or subcontractors shall have the 10-hour OSHA certified Construction Safety course and /or other relevant competency training, as determined by VA CP with input from the ICRA team.
2. Submit training records of all such employees for approval before the start of work.

H. Submittals:

All submittals must be submitted to the VA and A/E prior to commencing work. One courtesy copy shall be sent to the VA while five copies are simultaneously sent to the A/E. The submittal log shall be submitted to

the VA with a list of submittals required per the specifications within ten calendar days of this Pre-construction meeting.

I. Schedule of Values/Progress Chart:
Progress Chart must be submitted to the VA within ten calendar days of this Pre-construction Meeting. Prior to commencing work, the contractor shall submit a detailed schedule of work (including phasing, if any) from the starting day to the day of completion prior to commencing work.

J. Subcontractor List:
Within ten calendar days of this Pre-construction meeting, submit to the VA a list of all subcontractors including the company name, address, phone number and contact person.

K. Superintendent On/Off Jobsite:
The Superintendent on the job should be on the job site during the Work. The Superintendent on the job should sign the Log book in Engineering Office at the beginning of each workday. The VA must be made aware of when the contractor is on or off the Jobsite.

L. Daily Logs, Progress Chart, Payrolls & Invoice:
All contractors shall submit to the VA a completed Daily Log to the COTR at the end of working day. The daily log shall be on the form provided by the COTR at the Pre-construction meeting. All invoices shall be submitted in the Government Form 08-6001a. Payment applications will not be processed until the Daily Logs are up to date for that month, payrolls are received and updated monthly progress chart is received by Project Engineer.

M. Bi-monthly meeting:
The Project Manager of the job should attend bi-monthly construction r review meeting. The schedule of these meetings shall be coordinated with Project Engineer.

N. HOURS OF WORK:
Due to the nature of this work, all work shall be performed and completed during normal work hours only (Monday through Friday, 7:00 a.m. to 3:30 p.m.), except for national holidays when the facility is closed for normal operation.

1.2 STATEMENT OF BID ITEM(S)

A. ITEM I, GENERAL CONSTRUCTION: Work includes general construction, alterations, mechanical and electrical work, utility systems, necessary removal of existing structures and construction and certain other items.

B. ALTERNATE NO.1: Delete from the Base Bid the Amount required to omit the Patient Lift System from In-Patient Semi-Private Rooms 810 and 811.

C. ALTERNATE NO. 2: Add to or delete from the Base Bid the Amount required to provide ceramic tile in lieu of solid surface panels at the walls of all Patient Room showers.

1.3 SPECIFICATIONS AND DRAWINGS FOR CONTRACTOR

Not Applicable.

1.4 CONSTRUCTION SECURITY REQUIREMENETS

A. Security Plan:

1. The security plan defines both physical and administrative security procedures that will remain effective for the entire duration of the project.
2. The General Contractor is responsible for assuring that all sub-contractors working on the project and their employees also comply with these regulations.

B. Security Procedures:

1. General Contractor’s employees shall not enter the project site without appropriate badge. They may also be subject to inspection of their personal effects when entering or leaving the project site.
2. For working outside the “regular hours” as defined in the contract, The General Contractor shall give 3 days notice to the Contracting Officer so that security can be provided for the employees. This notice is separate from any notices required for utility shutdown described later in this section.
3. No photography of VA premises is allowed without written permission of the Contracting Officer.
4. VA reserves the right to close down or shut down the project site and order General Contractor’s employees off the premises in the event of a national emergency. The General Contractor may return to the site only with the written approval of the Contracting Officer.

D. Key Control:

1. The General Contractor shall provide two duplicate keys and lock combinations to the Project Engineer for the purpose of security inspections of every area of project including tool boxes and parked machines and take any emergency action.
2. The General Contractor shall turn over all permanent lock cylinders to the VA locksmith for permanent installation. See Section 08 71 00, DOOR HARDWARE and coordinate.

1.5 FIRE SAFETY

A. Applicable Publications: Publications listed below form part of this Article to extent referenced. Publications are referenced in text by basic designations only.

1. American Society for Testing and Materials (ASTM):
   E84-2008.....Surface Burning Characteristics of Building Materials
2. National Fire Protection Association (NFPA):
   10-2006.....Standard for Portable Fire Extinguishers
   30-2007.....Flammable and Combustible Liquids Code
   51B-2003.....Standard for Fire Prevention During Welding, Cutting and Other Hot Work
   70-2007.....National Electrical Code
   241-2004.....Standard for Safeguarding Construction, Alteration, and Demolition Operations
3. Occupational Safety and Health Administration (OSHA):
   29 CFR 1926.....Safety and Health Regulations for Construction

B. Fire Safety Plan: Establish and maintain a fire protection program in accordance with 29 CFR 1926. Prior to start of work, prepare a plan detailing project-specific fire safety measures, including periodic status reports, and submit to Project Engineer for review for compliance with contract requirements in accordance with Section 01 33 23, SHOP DRAWINGS, PRODUCT DATA AND SAMPLES Prior to any worker for the contractor or subcontractors beginning work, they shall undergo a safety briefing provided by the general contractor’s competent person per OSHA requirements. This briefing shall include information on the construction limits, VAMC safety guidelines, means of egress, break areas, work hours, locations of restrooms, use of VAMC equipment, etc. Documentation shall be provided to the Resident Engineer that individuals have undergone contractor’s safety briefing.

C. Site and Building Access: Maintain free and unobstructed access to facility emergency services and for fire, police and other emergency response forces in accordance with NFPA 241.

D. Separate temporary facilities, such as trailers, storage sheds, and dumpsters, from existing buildings and new construction by distances in accordance with NFPA 241. For small facilities with less than 6 m (20 feet) exposing overall length, separate by 3m (10 feet).

E. Temporary Construction Partitions:

1. Install and maintain temporary construction partitions to provide smoke-tight separations between construction areas and adjoining

areas. Construct partitions of gypsum board or treated plywood (flame spread rating of 25 or less in accordance with ASTM E84) on both sides of fire retardant treated wood or metal steel studs. Extend the partitions through suspended ceilings to floor slab deck or roof. Seal joints and penetrations. At door openings, install Class C, ¾ hour fire/smoke rated doors with self-closing devices.

2. Install one-hour fire-rated temporary construction partitions as shown on drawings to maintain integrity of existing exit stair enclosures, exit passageways, fire-rated enclosures of hazardous areas, horizontal exits, smoke barriers, vertical shafts and openings enclosures.
3. Close openings in smoke barriers and fire-rated construction to maintain fire ratings. Seal penetrations with listed through-penetration firestop materials in accordance with Section 07 84 00, FIRESTOPPING.

F. Temporary Heating and Electrical: Install, use and maintain installations in accordance with 29 CFR 1926, NFPA 241 and NFPA 70.

G. Means of Egress: Do not block exiting for occupied buildings, including paths from exits to roads. Minimize disruptions and coordinate with Project Engineer and Safety Manager.

H. Egress Routes for Construction Workers: Maintain free and unobstructed egress. Inspect daily. Report findings and corrective actions weekly to Project Engineer and Safety Manager.

I. Fire Extinguishers: Provide and maintain extinguishers in construction areas and temporary storage areas in accordance with 29 CFR 1926, NFPA 241 and NFPA 10.

J. Flammable and Combustible Liquids: Store, dispense and use liquids in accordance with 29 CFR 1926, NFPA 241 and NFPA 30.

K. Existing Fire Protection: Do not impair automatic sprinklers, smoke and heat detection, and fire alarm systems, except for portions immediately under construction, and temporarily for connections. Provide fire watch for impairments more than 4 hours in a 24-hour period. Request interruptions in accordance with Article, OPERATIONS AND STORAGE AREAS, and coordinate with Project Engineer and Safety Manager. All existing or temporary fire protection systems (fire alarms, sprinklers) located in construction areas shall be tested as coordinated with the medical center. Parameters for the testing and results of any tests performed shall be recorded by the medical center and copies provided to the Resident Engineer.

L. Smoke Detectors: Prevent accidental operation. Remove temporary covers at end of work operations each day. Coordinate with Project Engineer and Safety Manager.

M. Hot Work: Perform and safeguard hot work operations in accordance with NFPA 241 and NFPA 51B. Coordinate with Project Engineer and Safety Manager. Obtain permits from facility Safety Manager at least 48 hours in advance. Designate contractor's responsible project-site fire prevention program manager to permit hot work.

N. Fire Hazard Prevention and Safety Inspections: Inspect entire construction areas weekly. Coordinate with, and report findings and corrective actions weekly to Project Engineer and Safety Manager.

O. Smoking: Smoking is prohibited in and adjacent to construction areas inside existing buildings and additions under construction. In separate and detached buildings under construction, smoking is prohibited except in designated smoking rest areas.

P. Dispose of waste and debris in accordance with NFPA 241. Remove from buildings daily.

Q. Perform other construction, alteration and demolition operations in accordance with 29 CFR 1926.

R. If required, submit documentation to the Resident Engineer that personnel have been trained in the fire safety aspects of working in areas with impaired structural or compartmentalization features.

S. Above ceiling permits shall be obtained from Project Planning Office.

1.6 OPERATIONS AND STORAGE AREAS

A. The Contractor shall confine all operations (including storage of materials) on Government premises to areas authorized or approved by the Contracting Officer. The Contractor shall hold and save the Government, its officers and agents, free and harmless from liability of any nature occasioned by the Contractor's performance.

B. Temporary buildings (e.g., storage sheds, shops, offices) and utilities may be erected by the Contractor only with the approval of the Contracting Officer and shall be built with labor and materials furnished by the Contractor without expense to the Government. The temporary buildings and utilities shall remain the property of the Contractor and shall be removed by the Contractor at its expense upon completion of the work. With the written consent of the Contracting Officer, the buildings and utilities may be abandoned and need not be removed.

C. The Contractor shall, under regulations prescribed by the Contracting Officer, use only established roadways, or use temporary roadways

constructed by the Contractor when and as authorized by the Contracting Officer. When materials are transported in prosecuting the work, vehicles shall not be loaded beyond the loading capacity recommended by the manufacturer of the vehicle or prescribed by any Federal, State, or local law or regulation. All material, refuse, demo material, shall be transported before 6:00 am and after 5:00 pm daily and weekends. The weekends work only allowed thru project engineer's prior approval. When it is necessary to cross curbs or sidewalks, the Contractor shall protect them from damage. Transport route should be approved by the Project Engineer. The Contractor shall repair or pay for the repair of any damaged curbs, sidewalks, or roads. No on-site storage or a field office will be provided. If a trailer will be brought on site, request a location for it and get approvals as early as possible.
The necessity for materials, equipment and tool storage outside the construction and contract area shall be determined by the Project Engineer.

D. Working space and space available for storing materials shall be as determined by the Resident Engineer.

E. Workmen are subject to rules of Medical Center applicable to their conduct.

F. Execute work so as to interfere as little as possible with normal functioning of Medical Center as a whole, including operations of utility services, fire protection systems and any existing equipment, and with work being done by others. Use of equipment and tools that transmit vibrations and noises through the building structure, are not permitted in buildings that are occupied, during construction, jointly by patients or medical personnel, and Contractor's personnel between the hours of 6:00am and 5:00pm or when 24 hours patient occupancies are effected except as permitted by Project Engineer where required by limited working space. The use of repetitive devices (hammer drills, jack hammers, etc.) is prohibited when clinical user reports are received to cease work. Work shall stop until clinical user permits work resumption through Project Engineer.
   1. Do not store materials and equipment in other than assigned areas.
   2. Schedule delivery of materials and equipment to immediate construction working areas within buildings in use by Department of Veterans Affairs in quantities sufficient for not more than two work days. Provide unobstructed access to Medical Center areas required to remain in operation.

3. Where access by Medical Center personnel to vacated portions of buildings is not required, storage of Contractor's materials and equipment will be permitted subject to fire and safety requirements.
4. Use of impact/vibration producing equipment (hammer drills, jack hammers, etc) is prohibited unless approved by Project Engineer.

G. Phasing:
Not Applicable.

H. Construction Area will be vacated by Government in accordance with above phasing beginning immediately after date of receipt of Notice to Proceed and appropriate submittals are received.

I. Construction Fence: Before construction operations begin, Contractor shall provide a chain link construction fence, 2.1m (seven feet) minimum height, around the construction area indicated on the drawings. Provide gates as required for access with necessary hardware, including hasps and padlocks. Fasten fence fabric to terminal posts with tension bands and to line posts and top and bottom rails with tie wires spaced at maximum 375mm (15 inches). Bottom of fences shall extend to 25mm (one inch) above grade. Remove the fence when directed by Project Engineer.

J. When the construction area is turned over to Contractor, Contractor shall accept entire responsibility therefore.
1. Contractor shall maintain a minimum temperature of 4 degrees C (40 degrees F) at all times, except as otherwise specified.
2. Contractor shall maintain in operating condition existing fire protection and alarm equipment. In connection with fire alarm equipment, Contractor shall make arrangements for pre-inspection of site with Safety Department, who will be required to respond to an alarm from Contractor's employee or watchman.

K. Utilities Services: Maintain existing utility services for Medical Center at all times. Provide temporary facilities, labor, materials, equipment, connections, and utilities to assure uninterrupted services. Where necessary to cut existing water, steam, gases, sewer or air pipes, or conduits, wires, cables, etc. of utility services or of fire protection systems and communications systems (including telephone), they shall be cut and capped at suitable places where shown; or, in absence of such indication, where directed by Project Engineer.
1. No utility service such as water, gas, steam, sewers or electricity, or fire protection systems and communications systems may be interrupted without prior approval of Resident Engineer. Electrical work shall be accomplished with all affected circuits or equipment de-energized. When an electrical outage cannot be accomplished, work

on any energized circuits or equipment shall not commence without the Medical Center Director’s prior knowledge and written approval. Refer to specification Sections 26 05 11, REQUIREMENTS FOR ELECTRICAL INSTALLATIONS, 27 05 11 REQUIREMENTS FOR COMMUNICATIONS INSTALLATIONS and 28 05 11, REQUIREMENTS FOR ELECTRONIC SAFETY AND SECURITY INSTALLATIONS for additional requirements.

2. Contractor shall submit a request to interrupt utilities that affect only construction area to Project Engineer, in writing, 48 hours in advance of proposed interruption. Request shall state reason, date, exact time of, and approximate duration of such interruption.
3. Contractor will be advised (in writing) of approval of request, or of which other date and/or time such interruption will cause least inconvenience to operations of Medical Center. Interruption time approved by Medical Center may occur at other than Contractor's normal working hours.
4. Major interruptions of any system must be requested, in writing, at least 21 calendar days prior to the desired time and shall be performed as directed by the Resident Engineer.
5. In case of a contract construction emergency, service will be interrupted on approval of Project Engineer. Such approval will be confirmed in writing as soon as practical.
6. Whenever it is required that a connection fee be paid to a public utility provider for new permanent service to the construction project, for such items as water, sewer, electricity, gas or steam, payment of such fee shall be the responsibility of the Government and not the Contractor.

L. Abandoned Lines: All service lines such as wires, cables, conduits, ducts, pipes and the like, and their hangers or supports, which are to be abandoned but are not required to be entirely removed, shall be sealed, capped or plugged. The lines shall not be capped in finished areas, but shall be removed and sealed, capped or plugged in ceilings, within furred spaces, in unfinished areas, or within walls or partitions; so that they are completely behind the finished surfaces.

M. To minimize interference of construction activities with flow of Medical Center traffic, comply with the following:

1. Keep roads, walks and entrances to grounds, to parking and to occupied areas of buildings clear of construction materials, debris and standing construction equipment and vehicles. ~~// Wherever excavation for new utility lines cross existing roads, at least one lane must be open to traffic at all times. //~~ **(ADD 2)**

2. Method and scheduling of required cutting, altering and removal of existing roads, walks and entrances must be approved by the Project Engineer.

N. Coordinate the work for this contract with other construction operations as directed by Resident Engineer. This includes the scheduling of traffic and the use of roadways, as specified in Article, USE OF ROADWAYS.

O. The contractor is required to discontinue work during Federal Holidays.

P. The contractor shall obtain above ceiling permit from Room# 119, Bldg. 2 prior to any ceiling tile removal and/or any wall or ceiling penetrations.

1.7 ALTERATIONS

A. Survey: Before any work is started, the Contractor shall make a thorough survey with the Project Engineer of areas of buildings in which alterations occur and areas which are anticipated routes of access, and furnish a report, signed by both, to the Contracting Officer. This report shall list by rooms and spaces:

1. Existing condition and types of resilient flooring, doors, windows, walls and other surfaces not required to be altered throughout ~~//~~ affected areas of ~~//~~ building. ~~// buildings. //~~ **(ADD-2)**
2. Existence and conditions of items such as plumbing fixtures and accessories, electrical fixtures, equipment, venetian blinds, shades, etc., required by drawings to be either reused or relocated, or both.
3. Shall note any discrepancies between drawings and existing conditions at site.
4. Shall designate areas for working space, materials storage and routes of access to areas within buildings where alterations occur and which have been agreed upon by Contractor and Project Engineer.

B. Any items required by drawings to be either reused or relocated or both, found during this survey to be nonexistent, or in opinion of Project Engineer to be in such condition that their use is impossible or impractical, shall be furnished and/or replaced by Contractor with new items in accordance with specifications which will be furnished by Government. Provided the contract work is changed by reason of this subparagraph B, the contract will be modified accordingly, under provisions of clause entitled "DIFFERING SITE CONDITIONS" (FAR 52.236-2) and "CHANGES" (FAR 52.243-4 and VAAR 852.236-88) of Section 00 72 00, GENERAL CONDITIONS.

C. Re-Survey: Thirty days before expected partial or final inspection date, the Contractor and Resident Engineer together shall make a thorough

re-survey of the areas of buildings involved. They shall furnish a report on conditions then existing, of resilient flooring, doors, windows, walls and other surfaces as compared with conditions of same as noted in first condition survey report:

1. Re-survey report shall also list any damage caused by Contractor to such flooring and other surfaces, despite protection measures; and, will form basis for determining extent of repair work required of Contractor to restore damage caused by Contractor's workmen in executing work of this contract.

D. Protection: Provide the following protective measures:

1. Wherever existing roof surfaces are disturbed they shall be protected against water infiltration. In case of leaks, they shall be repaired immediately upon discovery.
2. Temporary protection against damage for portions of existing structures and grounds where work is to be done, materials handled and equipment moved and/or relocated.
3. Protection of interior of existing structures at all times, from damage, dust and weather inclemency. Wherever work is performed, floor surfaces that are to remain in place shall be adequately protected prior to starting work, and this protection shall be maintained intact until all work in the area is completed.

1.8 INFECTION PREVENTION MEASURES

A. Implement the requirements of VAMC’s Infection Control Risk Assessment (ICRA) team. ICRA Group may monitor dust in the vicinity of the construction work and require the Contractor to take corrective action immediately if the safe levels are exceeded.

B. Establish and maintain a dust control program as part of the contractor’s infection preventive measures in accordance with the guidelines provided by ICRA Group. Prior to start of work, prepare a plan detailing project-specific dust protection measures, including periodic status reports, and submit to Project Engineer and Facility ICRA team for review for compliance with contract requirements in accordance with Section 01 33 23, SHOP DRAWINGS, PRODUCT DATA AND SAMPLES.

1. All personnel involved in the construction or renovation activity shall be educated and trained in infection prevention measures established by the medical center.

C. Furnish and maintain NEGATIVE AIR exhaust machines for continuous 24 hr operation in all construction areas through construction duration and turnover. Maintain a 0.02 inch water column pressure and post manometer

at inside entrances of the construction area. Furnish, install and continuously maintain construction egress / entry walk-off mats on both sides of the construction barrier in all construction areas through construction duration and turnover. These shall be sticky mat at exterior and moist mat at the construction interior.

D. HINES VA contractor personnel identification badges shall be secured for all personnel prior to work by person or persons and worn at all times when on HINES VA station premises.

E. Medical center Infection Control personnel shall monitor for airborne disease (e.g. aspergillosis) as appropriate during construction. A baseline of conditions may be established by the medical center prior to the start of work and periodically during the construction stage to determine impact of construction activities on indoor air quality. In addition:

1. The Project Engineer and VAMC Infection Control personnel shall review pressure differential monitoring documentation to verify that pressure differentials in the construction zone and in the patient-care rooms are appropriate for their settings. The requirement for negative air pressure in the construction zone shall depend on the location and type of activity. Upon notification, the contractor shall implement corrective measures to restore proper pressure differentials as needed.
2. In case of any problem, the medical center, along with assistance from the contractor, shall conduct an environmental assessment to find and eliminate the source.

F. In general, following preventive measures shall be adopted during construction to keep down dust and prevent mold.

1. Dampen debris to keep down dust and provide temporary construction partitions in existing structures where directed by Resident Engineer. Blank off ducts and diffusers to prevent circulation of dust into occupied areas during construction.
2. Do not perform dust producing tasks within occupied areas without the approval of the Resident Engineer. For construction in any areas that will remain jointly occupied by the medical Center and Contractor’s workers, the Contractor shall:
   a. Provide dust proof one-hour temporary drywall construction barriers to completely separate construction from the operational areas of the hospital in order to contain dirt debris and dust. Barriers shall be sealed and made presentable on hospital occupied side. Install a self-closing rated door in a metal frame,

commensurate with the partition, to allow worker access. Maintain negative air at all times. A fire retardant polystyrene, 6-mil thick or greater plastic barrier meeting local fire codes may be used where dust control is the only hazard, and an agreement is reached with the Project Engineer and Medical Center.

b. HEPA filtration is required where the exhaust dust may reenter the breathing zone. Contractor shall verify that construction exhaust to exterior is not reintroduced to the medical center through intake vents, or building openings. Install HEPA (High Efficiency Particulate Accumulator) filter vacuum system rated at 95% capture of 0.3 microns including pollen, mold spores and dust particles. Insure continuous negative air pressures occurring within the work area. HEPA filters should have ASHRAE 85 or other prefilter to extend the useful life of the HEPA. Provide both primary and secondary filtrations units. Exhaust hoses shall be heavy duty, flexible steel reinforced and exhausted so that dust is not reintroduced to the medical center. Discharge route and entry shall be approved by the Project Engineer.
c. Adhesive Walk-off/Carpet Walk-off Mats, minimum 600mm x 900mm (24” x 36”), shall be used at all interior transitions from the construction area to occupied medical center area. These mats shall be changed as often as required to maintain clean work areas directly outside construction area at all times.
d. Vacuum and wet mop all transition areas from construction to the occupied medical center at the end of each workday. Vacuum shall utilize HEPA filtration. Maintain surrounding area frequently. Remove debris as they are created. Transport these outside the construction area in containers with tightly fitting lids.
e. The contractor shall not haul debris through patient-care areas without prior approval of the Project Engineer and the Medical Center. Remove debris only after 5pm and it shall be hauled in enclosed dust proof containers or wrapped in plastic and sealed with duct tape. No sharp objects should be allowed to cut through the plastic. Wipe down the exterior of the containers with a damp rag to remove dust. All equipment, tools, material, etc. transported through occupied areas shall be made free from dust and moisture by vacuuming and wipe down.
f. Using a HEPA vacuum, clean inside the barrier and vacuum ceiling tile prior to replacement. Any ceiling access panels opened for

investigation beyond sealed areas shall be sealed immediately when unattended.

g. There shall be no standing water during construction. This includes water in equipment drip pans and open containers within the construction areas. All accidental spills must be cleaned up and dried within 12 hours. Remove and dispose of porous materials that remain damp for more than 72 hours.

h. At completion, remove construction barriers and ceiling protection carefully, outside of normal work hours. Vacuum and clean all surfaces free of dust after the removal.

G. Final Cleanup:

1. Upon completion of project, or as work progresses, remove all construction debris from above ceiling, vertical shafts and utility chases that have been part of the construction.
2. Perform HEPA vacuum cleaning of all surfaces in the construction area. This includes walls, ceilings, cabinets, furniture (built-in or free standing), partitions, flooring, etc.
3. All new air ducts shall be cleaned prior to final inspection.

1.9 DISPOSAL AND RETENTION

A. Materials and equipment accruing from work removed and from demolition of buildings or structures, or parts thereof, shall be disposed of as follows:

1. Reserved items which are to remain property of the Government are identified by attached tags as items to be stored. Items that remain property of the Government shall be removed or dislodged from present locations in such a manner as to prevent damage which would be detrimental to re-installation and reuse. Store such items where directed by Resident Engineer.
2. Items not reserved shall become property of the Contractor and be removed by Contractor from Medical Center.
3. Items of portable equipment and furnishings located in rooms and spaces in which work is to be done under this contract shall remain the property of the Government. When rooms and spaces are vacated by the Department of Veterans Affairs during the alteration period, such items which are NOT required by drawings and specifications to be either relocated or reused will be removed by the Government in advance of work to avoid interfering with Contractor's operation.
4. PCB Transformers and Capacitors: The Contractor shall be responsible for disposal of the Polychlorinated Biphenyl (PCB) transformers and capacitors. The transformers and capacitors shall be taken out of

service and handled in accordance with the procedures of the Environmental Protection Agency (EPA) and the Department of Transportation (DOT) as outlined in Code of Federal Regulation (CFR), Titled 40 and 49 respectively. The EPA's Toxic Substance Control Act (TSCA) Compliance Program Policy Nos. 6-PCB-6 and 6-PCB-7 also apply. Upon removal of PCB transformers and capacitors for disposal, the "originator" copy of the Uniform Hazardous Waste Manifest (EPA Form 8700-22), along with the Uniform Hazardous Waste Manifest Continuation Sheet (EPA Form 8700-22A) shall be returned to the Contracting Officer who will annotate the contract file and transmit the Manifest to the Medical Center's Chief.

a. Copies of the following listed CFR titles may be obtained from the Government Printing Office:

40 CFR 261.....Identification and Listing of Hazardous Waste
40 CFR 262.....Standards Applicable to Generators of Hazardous Waste
40 CFR 263.....Standards Applicable to Transporters of Hazardous Waste
40 CFR 761.....PCB Manufacturing, Processing, Distribution in Commerce, and use Prohibitions
49 CFR 172.....Hazardous Material tables and Hazardous Material Communications Regulations
49 CFR 173.....Shippers - General Requirements for Shipments and Packaging
49 CRR 173.....Subpart A General
49 CFR 173.....Subpart B Preparation of Hazardous Material for Transportation
49 CFR 173.....Subpart J Other Regulated Material; Definitions and Preparation
TSCA.....Compliance Program Policy Nos. 6-PCB-6 and 6-PCB-7

1.10 PROTECTION OF EXISTING VEGETATION, STRUCTURES, EQUIPMENT, UTILITIES, AND IMPROVEMENTS

A. The Contractor shall preserve and protect all structures, equipment, and vegetation (such as trees, shrubs, and grass) on or adjacent to the work site, which are not to be removed and which do not unreasonably interfere with the work required under this contract. The Contractor shall only remove trees when specifically authorized to do so, and shall avoid damaging vegetation that will remain in place. If any limbs or branches of trees are broken during contract performance, or by the

careless operation of equipment, or by workmen, the Contractor shall trim those limbs or branches with a clean cut and paint the cut with a tree-pruning compound as directed by the Contracting Officer.

B. The Contractor shall protect from damage all existing improvements and utilities at or near the work site and on adjacent property of a third party, the locations of which are made known to or should be known by the Contractor. The Contractor shall repair any damage to those facilities, including those that are the property of a third party, resulting from failure to comply with the requirements of this contract or failure to exercise reasonable care in performing the work. If the Contractor fails or refuses to repair the damage promptly, the Contracting Officer may have the necessary work performed and charge the cost to the Contractor.

(FAR 52.236-9)

C. Refer to Section 01 57 19, TEMPORARY ENVIRONMENTAL CONTROLS, for additional requirements on protecting vegetation, soils and the environment. Refer to Articles, "Alterations", "Restoration", and "Operations and Storage Areas" for additional instructions concerning repair of damage to structures and site improvements.

D. Refer to FAR clause 52.236-7, "Permits and Responsibilities," which is included in General Conditions. A National Pollutant Discharge Elimination System (NPDES) permit is required for this project. The Contractor is considered an "operator" under the permit and has extensive responsibility for compliance with permit requirements. VA will make the permit application available at the (appropriate medical center) office. The apparent low bidder, contractor and affected subcontractors shall furnish all information and certifications that are required to comply with the permit process and permit requirements. Many of the permit requirements will be satisfied by completing construction as shown and specified. Some requirements involve the Contractor's method of operations and operations planning and the Contractor is responsible for employing best management practices. The affected activities often include, but are not limited to the following:

- Designating areas for equipment maintenance and repair;
- Providing waste receptacles at convenient locations and provide regular collection of wastes;
- Locating equipment wash down areas on site, and provide appropriate control of wash-waters;
- Providing protected storage areas for chemicals, paints, solvents, fertilizers, and other potentially toxic materials; and

- Providing adequately maintained sanitary facilities.

1.11 RESTORATION

A. Remove, cut, alter, replace, patch and repair existing work as necessary to install new work. Except as otherwise shown or specified, do not cut, alter or remove any structural work, and do not disturb any ducts, plumbing, steam, gas, or electric work without approval of the Resident Engineer. Existing work to be altered or extended and that is found to be defective in any way, shall be reported to the Resident Engineer before it is disturbed. Materials and workmanship used in restoring work, shall conform in type and quality to that of original existing construction, except as otherwise shown or specified.

B. Upon completion of contract, deliver work complete and undamaged. Existing work (walls, ceilings, partitions, floors, mechanical and electrical work, lawns, paving, roads, walks, etc.) disturbed or removed as a result of performing required new work, shall be patched, repaired, reinstalled, or replaced with new work, and refinished and left in as good condition as existed before commencing work.

C. At Contractor's own expense, Contractor shall immediately restore to service and repair any damage caused by Contractor's workmen to existing piping and conduits, wires, cables, etc., of utility services or of fire protection systems and communications systems (including telephone) which are indicated on drawings and which are not scheduled for discontinuance or abandonment.

D. Expense of repairs to such utilities and systems not shown on drawings or locations of which are unknown will be covered by adjustment to contract time and price in accordance with clause entitled "CHANGES" (FAR 52.243-4 and VAAR 852.236-88) and "DIFFERING SITE CONDITIONS" (FAR 52.236-2) of Section 00 72 00, GENERAL CONDITIONS.

1.12 PHYSICAL DATA

Not Applicable

1.13 PROFESSIONAL SURVEYING SERVICES

Not Applicable

1.14 LAYOUT OF WORK

Not Applicable

1.15 AS-BUILT DRAWINGS

A. The contractor shall maintain two full size sets of as-built drawings which will be kept current during construction of the project, to include all contract changes, modifications and clarifications.

B. All variations shall be shown in the same general detail as used in the contract drawings. To insure compliance, as-built drawings shall be made available for the Resident Engineer's review, as often as requested.

C. Contractor shall deliver two approved completed sets of as-built drawings to the Resident Engineer within 15 calendar days after each completed phase and after the acceptance of the project by the Resident Engineer.

D. Paragraphs A, B, & C shall also apply to all shop drawings.

1.16 USE OF ROADWAYS

A. For hauling, use only established public roads and roads on Medical Center property and, when authorized by the Resident Engineer, such temporary roads which are necessary in the performance of contract work. Temporary roads shall be constructed by the Contractor at Contractor's expense. When necessary to cross curbing, sidewalks, or similar construction, they must be protected by well-constructed bridges.

B. When new permanent roads are to be a part of this contract, Contractor may construct them immediately for use to facilitate building operations. These roads may be used by all who have business thereon within zone of building operations.

C. When certain buildings (or parts of certain buildings) are required to be completed in advance of general date of completion, all roads leading thereto must be completed and available for use at time set for completion of such buildings or parts thereof.

1.17 RESIDENT ENGINEER'S FIELD OFFICE

Not Applicable.

1.18 TEMPORARY USE OF MECHANICAL AND ELECTRICAL EQUIPMENT

A. Use of new installed mechanical and electrical equipment to provide heat, ventilation, plumbing, light and power will be permitted subject to compliance with the following provisions:

1. Permission to use each unit or system must be given by Resident Engineer. If the equipment is not installed and maintained in accordance with the following provisions, the Resident Engineer will withdraw permission for use of the equipment.
2. Electrical installations used by the equipment shall be completed in accordance with the drawings and specifications to prevent damage to the equipment and the electrical systems, i.e. transformers, relays, circuit breakers, fuses, conductors, motor controllers and their overload elements shall be properly sized, coordinated and adjusted. Voltage supplied to each item of equipment shall be verified to be correct and it shall be determined that motors are not overloaded.

The electrical equipment shall be thoroughly cleaned before using it and again immediately before final inspection including vacuum cleaning and wiping clean interior and exterior surfaces.

3. Units shall be properly lubricated, balanced, and aligned. Vibrations must be eliminated.
4. Automatic temperature control systems for preheat coils shall function properly and all safety controls shall function to prevent coil freeze-up damage.
5. The air filtering system utilized shall be that which is designed for the system when complete, and all filter elements shall be replaced at completion of construction and prior to testing and balancing of system.
6. All components of heat production and distribution system, metering equipment, condensate returns, and other auxiliary facilities used in temporary service shall be cleaned prior to use; maintained to prevent corrosion internally and externally during use; and cleaned, maintained and inspected prior to acceptance by the Government. Boilers, pumps, feedwater heaters and auxiliary equipment must be operated as a complete system and be fully maintained by operating personnel. Boiler water must be given complete and continuous chemical treatment.

B. Prior to final inspection, the equipment or parts used which show wear and tear beyond normal, shall be replaced with identical replacements, at no additional cost to the Government.

C. This paragraph shall not reduce the requirements of the mechanical and electrical specifications sections.

1.19 TEMPORARY USE OF EXISTING ELEVATORS

A. Contractor will not be allowed the use of existing elevators. Outside type hoist shall be used by Contractor for transporting materials and equipment. Use of existing elevator for handling building materials and Contractor's personnel will be permitted subject to following provisions:

1. Contractor shall use the designated elevators to move the material in and out of the construction area only after 5 P.M. during weekdays and on weekends. Contractor may use one of the Service Elevators in Building No. 200. The Project Engineer will ascertain that elevators are in proper condition.
2. Contractor covers and provides maximum protection of following elevator components:

   a. Entrance jambs, heads soffits and threshold plates.

b. Entrance columns, canopy, return panels and inside surfaces of car enclosure walls.
c. Finish flooring.

3. Government will accept hoisting ropes of elevator and rope of each speed governor if they are worn under normal operation. However, if these ropes are damaged by action of foreign matter such as sand, lime, grit, stones, etc., during temporary use, they shall be removed and replaced by new hoisting ropes.
4. If brake lining of elevators are excessively worn or damaged during temporary use, they shall be removed and replaced by new brake lining.
5. All parts of main controller, starter, relay panel, selector, etc., worn or damaged during temporary use shall be removed and replaced with new parts, if recommended by elevator inspector after elevator is released by Contractor.
6. Place elevator in condition equal, less normal wear, to that existing at time it was placed in service of Contractor as approved by Contracting Officer.

1.21 TEMPORARY TOILETS

A. Provide where directed, (for use of all Contractor's workmen) ample temporary sanitary toilet accommodations with suitable sewer and water connections; or, when approved by Resident Engineer, provide suitable dry closets where directed. Keep such places clean and free from flies, and all connections and appliances connected therewith are to be removed prior to completion of contract, and premises left perfectly clean. Contractor may have for use of Contractor's workmen, such toilet accommodations as may be assigned to Contractor by Medical Center. Contractor shall keep such places clean and be responsible for any damage done thereto by Contractor's workmen. Failure to maintain satisfactory condition in toilets will deprive Contractor of the privilege to use such toilets.

1.22 AVAILABILITY AND USE OF UTILITY SERVICES

A. The Government shall make all reasonably required amounts of utilities available to the Contractor from existing outlets and supplies, as specified in the contract. The amount to be paid by the Contractor for chargeable electrical services shall be the prevailing rates charged to the Government. The Contractor shall carefully conserve any utilities furnished without charge.

B. The Contractor, at Contractor's expense and in a workmanlike manner satisfactory to the Contracting Officer, shall install and maintain all necessary temporary connections and distribution lines, and all meters required to measure the amount of electricity used for the purpose of determining charges. Before final acceptance of the work by the Government, the Contractor shall remove all the temporary connections, distribution lines, meters, and associated paraphernalia.

C. Contractor shall install meters at Contractor's expense and furnish the Medical Center a monthly record of the Contractor's usage of electricity as hereinafter specified.

D. Heat: Furnish temporary heat necessary to prevent injury to work and materials through dampness and cold. Use of open salamanders or any temporary heating devices which may be fire hazards or may smoke and damage finished work, will not be permitted. Maintain minimum temperatures as specified for various materials:

1. Obtain heat by connecting to Medical Center heating distribution system.
   a. Steam is available at no cost to Contractor.

E. Electricity ~~(for Construction and Testing)~~: Furnish all temporary electric services. **(ADD-2)**

1. Obtain electricity by connecting to the Medical Center electrical distribution system. The Contractor shall meter and pay for electricity required for electric cranes and hoisting devices, electrical welding devices and any electrical heating devices providing temporary heat. Electricity for all other uses is available at no cost to the Contractor.

F. Water ~~(for Construction and Testing)~~: Furnish temporary water service.**(ADD-2)**

1. Obtain water by connecting to the Medical Center water distribution system. Provide reduced pressure backflow preventer at each connection. Water is available at no cost to the Contractor.
2. Maintain connections, pipe, fittings and fixtures and conserve water-use so none is wasted. Failure to stop leakage or other wastes will be cause for revocation (at Resident Engineer's discretion) of use of water from Medical Center's system.

G. Steam: Furnish steam system for testing required in various sections of specifications.

1. Obtain steam for testing by connecting to the Medical Center steam distribution system. Steam is available at no cost to the Contractor.

2. Maintain connections, pipe, fittings and fixtures and conserve steam-use so none is wasted. Failure to stop leakage or other waste will be cause for revocation (at Resident Engineer's discretion), of use of steam from the Medical Center's system.

H. Fuel: Natural and LP gas and burner fuel oil required for boiler cleaning, normal initial boiler-burner setup and adjusting, and for performing the specified boiler tests will be furnished by the Government. Fuel required for prolonged boiler-burner setup, adjustments, or modifications due to improper design or operation of boiler, burner, or control devices shall be furnished by the Contractor at Contractor's expense.

1.24 TESTS

A. Pre-test mechanical and electrical equipment and systems and make corrections required for proper operation of such systems before requesting final tests. Final test will not be conducted unless pre-tested.

B. Conduct final tests required in various sections of specifications in presence of an authorized representative of the Contracting Officer. Contractor shall furnish all labor, materials, equipment, instruments, and forms, to conduct and record such tests.

C. Mechanical and electrical systems shall be balanced, controlled and coordinated. A system is defined as the entire complex which must be coordinated to work together during normal operation to produce results for which the system is designed. For example, air conditioning supply air is only one part of entire system which provides comfort conditions for a building. Other related components are return air, exhaust air, steam, chilled water, refrigerant, hot water, controls and electricity, etc. Another example of a complex which involves several components of different disciplines is a boiler installation. Efficient and acceptable boiler operation depends upon the coordination and proper operation of fuel, combustion air, controls, steam, feed water, condensate and other related components.

D. All related components as defined above shall be functioning when any system component is tested. Tests shall be completed within a reasonably short period of time during which operating and environmental conditions remain reasonably constant.

E. Individual test result of any component, where required, will only be accepted when submitted with the test results of related components and of the entire system.

1.25 INSTRUCTIONS

A. Contractor shall furnish Maintenance and Operating manuals and verbal instructions when required by the various sections of the specifications and as hereinafter specified.

B. Manuals: Maintenance and operating manuals (four copies each) for each separate piece of equipment shall be delivered to the Resident Engineer coincidental with the delivery of the equipment to the job site. Manuals shall be complete, detailed guides for the maintenance and operation of equipment. They shall include complete information necessary for starting, adjusting, maintaining in continuous operation for long periods of time and dismantling and reassembling of the complete units and sub-assembly components. Manuals shall include an index covering all component parts clearly cross-referenced to diagrams and illustrations. Illustrations shall include "exploded" views showing and identifying each separate item. Emphasis shall be placed on the use of special tools and instruments. The function of each piece of equipment, component, accessory and control shall be clearly and thoroughly explained. All necessary precautions for the operation of the equipment and the reason for each precaution shall be clearly set forth. Manuals must reference the exact model, style and size of the piece of equipment and system being furnished. Manuals referencing equipment similar to but of a different model, style, and size than that furnished will not be accepted.

C. Instructions: Contractor shall provide qualified, factory-trained manufacturers' representatives to give detailed instructions to assigned Department of Veterans Affairs personnel in the operation and complete maintenance for each piece of equipment. All such training will be at the job site. These requirements are more specifically detailed in the various technical sections. Instructions for different items of equipment that are component parts of a complete system, shall be given in an integrated, progressive manner. All instructors for every piece of component equipment in a system shall be available until instructions for all items included in the system have been completed. This is to assure proper instruction in the operation of inter-related systems. All instruction periods shall be at such times as scheduled by the Resident Engineer and shall be considered concluded only when the Resident Engineer is satisfied in regard to complete and thorough coverage. The Department of Veterans Affairs reserves the right to request the removal of, and substitution for, any instructor who, in the opinion of the

Resident Engineer, does not demonstrate sufficient qualifications in accordance with requirements for instructors above.

1.27 RELOCATED EQUIPMENT AND ITEMS

A. Contractor shall disconnect, dismantle as necessary, remove and reinstall in new location, all existing equipment and items indicated by symbol "R" or otherwise shown to be relocated by the Contractor.

B. Perform relocation of such equipment or items at such times and in such a manner as directed by the Resident Engineer.

C. Suitably cap existing service lines, such as steam, condensate return, water, drain, gas, air, vacuum and/or electrical, whenever such lines are disconnected from equipment to be relocated. Remove abandoned lines in finished areas and cap as specified herein before under paragraph "Abandoned Lines".

D. Provide all mechanical and electrical service connections, fittings, fastenings and any other materials necessary for assembly and installation of relocated equipment; and leave such equipment in proper operating condition.

E. Contractor shall employ services of an installation engineer, who is an authorized representative of the manufacturer of this equipment to supervise assembly and installation of existing dictating machine, X-ray, dental and laundry equipment, required to be relocated.

F. All service lines such as noted above for relocated equipment shall be in place at point of relocation ready for use before any existing equipment is disconnected. Make relocated existing equipment ready for operation or use immediately after reinstallation.

1.28 STORAGE SPACE FOR DEPARTMENT OF VETERANS AFFAIRS EQUIPMENT

A. Coordinate storage space in building with Contracting Officer.

1. Provide such space with adequate light, ventilation and heat in season and lock for adequate security. Contractor shall also install and connect portion of nearest specified fire protection system including all apparatus for instant use to provide water for adequate fire protection of storage space.
2. Storage space shall be turned over to Contracting Officer ninety days prior to Completion Date of the buildings involved.
3. Forward two sets of drawings to Contracting Officer through the Resident Engineer 120 days prior to Completion Date of building; drawings shall indicate those areas which will be made available to Department of Veterans Affairs for temporary storage.

4. All cost for utility services for such storage space shall be borne by Contractor until entire building is turned over for occupancy.

B. "Completion Date" shall mean that date as established by Contracting Officer upon which Contractor will turn over entire project or portions thereof to the Government.

1.29 CONSTRUCTION SIGN

Not applicable

1.30 SAFETY SIGN:

Not applicable.

- - - E N D - - -

Specifications for Basic Data Cable Installations

The National Electrical Code (NEC) will be adhered to for all installations in addition to the following site specific requirements.

Category 6, four pair, 100 ohm UTP (24 AWG solid conductor), Systemax #1071 1071004EWH or equivalent .Data color White cable will be used unless otherwise specified. All materials to be supplied by contractor. 25 year warranty on material and workmanship will be provided with cat-6 certification test results and floor plan of location numbers (data as built) within 2 weeks after work completion. IRM will need at least 1 week to review test results, verify locations, and problem areas for contractor to resolve at least 3 weeks before cable plant system can be used.

Two cables will be run from the station side to IRM designated data closet that is identified with an electronically printed label. All cable runs will follow the cable trays that are above the drop ceilings. When no trays are available, contractor will provide suitable hangers and follow through the common halls until the applicable room is reached, then the cable will be accessed into the room above the entrance door. Contractor will be responsible for all coring necessary. Cable will be one piece direct runs. All cable protruding through walls and floors will be fire stopped meeting all VA standards.

All cable will be fished though the walls if possible. Otherwise, panduit surface raceway systems will be used along with surface mounted jacks. Terminate the station side with (ivory) 2 position faceplates M12AP-446 or 4 position faceplates M14L-246 when applicable (with telephone). All jacks will be Systemax inserts Data 1 (#.1)– MGS400-003 (black) & Data 2 – (#.2) MGS400-246 (ivory). Terminate the data closet side using Systemax 48 Port Patch Panel1100GS3-48. Panels will be mounted from top of rack after fiber LIU working down and alternating patch panels with cable management panels leaving available room for network equipment. Sequential numbering will be used from IRMs numbering system with no gaps or omissions from sequence. Wireless punch down will typically be used in the last remaining panel ports allowing for sequential numbering of open ports left available. Free standing 19” rack or wall mounted 19” cabinet will provide enough room for Patch panels and cable management system, to support cable infrastructure. Each station will be tested and labeled in accordance with VA numbering system with documentation provided to the VA representative.

If area is being remodeled, existing cat-6 data drops can be saved and re-used with original numbering system where economical and approved by Hines IRM. If new Cat-6 wire is installed Cat-6 patch panels may need to be added if not already available. If any data lines are not being re-used, contractor will remove all abandoned cable from station to data closet. Data locs to be identified by numbering system provided by Hines IRM, who will also direct installation requirements as necessary. All materials to be provided by contractor, every installation shall be terminated on both ends, tested and identified by sequential numbers on electronic labels with documentation provided to the VA representative. New data systems will have all new components installed in compliance and all data lines tested and cat-6 certified for 25 year warranty

When fiber optics is required the minimum pull shall be 12 strands of 50 micron multimode terminated at both ends with fiber connectors to be determined by IRM representative. Six strands single mode fiber will also be installed to the same locations with terminating ends and LIU types to be determined by IRM.

Data closets will have minimum of 1 duplex normal power and 2 duplex critical power outlets available for IRM equipment. Any unnecessary items from previous room functions will be removed from closet. Upon completion of job, data closets will be cleaned of all dust and debris from rack, rack

panels, cable managers, walls, floor and ceilings.

Specifications for Basic Voice Cable Installations

The National Electrical Code (NEC) will be adhered to for all installations in addition to the following site specific requirements.

Category 6, four pair, 100 ohm UTP (24 AWG solid conductor), Systemax #1071 1071004EWH or equivalent. Voice color Gray cable will be. All materials to be supplied by contractor. 25 year warranty on material and workmanship will be provided with cat-6 certification test results and floor plan of location numbers will be provided 2 weeks before cable plant system can be used.

One cable will be run from the station side to IRM designated Phone closet that is identified with an electronically printed label. All cable runs will follow the cable trays that are above the drop ceilings. When no trays are available, contractor will provide suitable hangers and follow through the common halls until the applicable room is reached, then the cable will be accessed into the room. Contractor will be responsible for all necessary coring. Cable will be one piece direct runs. All cable protruding through walls and floors will be fire stopped meeting all VA standards.

All cable will be fished though the walls if possible. Otherwise, panduit surface raceway systems will be used along with surface mounted jacks. Terminate the station side with Systimax M1AH-262 white voice jacks. Terminate the phone closet side using Siemon Co. S66M1-50 66 blocks wall mounted using 89B brackets. Each station will be tested and labeled in accordance with VA numbering system with documentation provided to the VA representative.

If area is being remodeled, existing data and voice drops will be saved and re-used with original numbering system where economical. If any data or voice lines are not being re-used, contractor will remove all cable from station to phone closet. Phone locations to be identified by numbering system provided by Hines IRM, who will also direct installation requirements as necessary.

When fiber optics is required the minimum pull shall be 12 strands of 50 micron multimode terminated at both ends with fiber connectors to be determined by IRM representative. Six strands single mode fiber will also be installed to the same locations with terminating ends and LIU types to be determined by Hines IRM. All materials to be provided by contractor, every installation shall be tested and identified with documentation provided to the VA representative.

Voice/Data overview for Hines VA Facility

A. Basic VA voice/data cable installation with 25 year warranty
   Voice/data face plate shall be ivory quad faceplate with 2 eight position RJ45 Systemax data jacks, on top #.1 Black jack MGS-400-003 and #.2 Ivory jack MGS-400-246, one data cable for each jack.
B. Bottom two jacks shall be white voice six position RJ11 Systemax M1AH-262 jack, one wire split with one pair to each jack and 2 pair spare.
C. New cable tray will be basket style and provided in sections through each phase of construction
D. All voice station wiring to nearest closet unless otherwise specified by Hines telecommunications.
E. All voice/data cable shall be 4 pair #24 UTP plenum category 6.
F. Voice jacks – white
   Voice cable – grey

Data cable - white
Data Jacks are black for (.1) and Ivory for (.2)

G Data Closet should have 7' x 19" rack will have Fiber panel on top moving down with 3 & ½" Data panels to be separated by 3 & ½" cable management panels. Jack Panels to be sequentially numbered with electronic labels of IRM number scheme #.1 #.2 with no omissions or duplications.

H. Phone closet should be terminated using Siemon Co. S66M1-50 66 blocks wall mounted using 89B brackets. Each station will be tested for continuity and labeled in accordance with VA numbering system with documentation provided to the VA representative.

I. All previously abandoned telephone cable and Data cable in construction area will be removed completely from end to end.

J. All cables and terminations to be tested at cat-6 certification level with passing test results provided to Hines IRM and identified by matching numbering scheme with any updates or changes marked on print.

K. Data closet to be provided with one duplex for normal power and two duplex for critical power.

L. Data and phone closets to be cleaned of all dust and debris from racks, walls, and floor.

M. Any penetrations through walls and floors will be fire stopped meeting all VA standards.

Safety, Rules & Procedures for Contractors

Hospital Policy: All construction personnel shall be orientated and trained on hospital safety, rules and procedures before starting work and periodically throughout the project duration. The general contractor and subcontractors' field supervisors/foremen shall be thoroughly familiar with Specification Section 01010 "General Requirements" and those items covered in the "Field Supervisors/Foremen Agreement" below.

Purpose: To ensure that each individual contractor employee is responsible for complying with established hospital standards, applicable OSHA Safety Requirements, federal, state and local environmental regulations, wearing prescribed safety equipment, and preventing avoidable accidents.

Procedure: Each individual Field Supervisor/Foreman is to review, understand and acknowledge (sign) the following information prior to the commencement of work scheduled at this facility. A contractor's pay request will only be approved after the Contracting Officer Technical Representative (COTR) has received signed agreements from each field supervisor/foreman requesting to be paid on an invoice.

Field Supervisors/Foremen Agreement

Access to Construction Areas

- All contractors shall check-in with the COTR before beginning a project or work. The contractor shall be prepared to provide the following information; scope of work, authorization, duration, as well as other pertinent information.
- Access is limited to areas such as critical care, patient care and surgical units, as well as mechanical/electrical rooms. Access can be obtained through the COTR.
- Access to any floors of the facility after normally scheduled work hours (Monday-Friday, 7:00am – 4:30pm) must be scheduled in advance with the COTR. Police reserves the right to refuse access to anyone without prior authorization and identification.
- Ready access for Engineering, Safety, Police and Fire Department shall be maintained to all areas under construction at all times.
- Areas under construction shall be locked during non-business hours. Keys and cylinders for this purpose are obtained through the COTR. Contractors will not put their locks on any doors without COTR approval.

Accident and Injuries

- The contractor must post emergency phone numbers and treatment facilities for use by contractor employees if injured on the job or in need of medical treatment.
- Work site injuries must be reported to the COTR. The VA accident reporting form is Number 2162. The COTR/Safety/or Security and Police Service will initiate the 2162. The injured individual will need to complete the narrative portion of the report.

Asbestos

- There are both friable and non-friable asbestos-containing materials located within the hospital complex. Inspection reports are available from the COTR. Contractors are required to be aware of the asbestos material located in the vicinity of their work. Further, all contractors are expressly forbidden to disturb any asbestos-containing materials unless specifically authorized in writing by the COTR. Under no circumstances are any materials supplied or installed by the contractor to contain asbestos in any form or quantity.
- Asbestos removal contractors will be trained and licensed, and will follow OSHA, VA Specifications, state and local regulations from notification to disposal.

- A VA Representative will verify the adequacy of the barriers and ventilation before any asbestos removal work is conducted.
- The contractor(s) is responsible for monitoring their employees' exposure to asbestos.
- Additional asbestos removal specifications will apply.

Clean-up

- All work activities within occupied portions of the facility shall be immediately cleaned and restored to its original finished condition upon completion of the activity. If the activity continues into the next workday, the area shall be left safe, clean, and presentable.
- Public restrooms are not to be used for cleaning tools or equipment. Janitor's slop sinks are available for this purpose. If janitor's closets are used they must be cleaned.
- Trash, combustible waste, and excess construction materials must be removed daily to prevent accumulation. Contractors must arrange for the removal of their debris and waste.
- All work for an area must be confined within that space. Public corridors, stairwells, equipment rooms, and vacant floors are not to be used for the storage of materials or as a workshop. Tracking of construction dirt into the public corridors or stairwells must be prevented. The contractor will provide tack pads at all entrances and exits from the construction space.
- If smoke detectors are covered during dust-producing activities, they must be uncovered at the end of each day.
- All contractors working above the ceiling are required to reset all disturbed ceiling tiles by the end of the day.

Compressed Gas Cylinders

- Compressed gas cylinders are very dangerous if not treated properly.
- Employees who work with compressed gas cylinders must have specific training in that area.
- Make sure that they are secured properly when in use of in storage.
- Always keep the caps on the cylinders when they are not in use.
- Hot work permit(s) are required.

Confined Space

- Consult with the COTR before entering sewers, manholes, and underground vaults. Identify which require confined space permits.
- All construction personnel that require entry into a confined space must abide by the Confined Space Program procedure. NO ONE will be allowed to enter these areas without the proper qualifications, equipment and training.
- It is the sole responsibility of the contractor to coordinate entry into any confined space. The contractor shall notify the COTR prior to entering a confined space.
- Anyone entering a permit-required confine space must follow OSHA regulations, 29 CFR 1910.120.

Contractor's Impact

System	Possible Interruption	Possible Effect to Patients
Electrical	- Changing position of switches and breakers - Cutting or splicing into wires - Disconnecting wires or terminals - Disturbing Junction Boxes/Electrical Panels - Core Drilling - Demolition of walls - Excavation	Electrical Systems provides LIFE SUPPORT (Directly and Indirectly) - Can cause DEATH to critical patients
Water Lines	- Turning valves - Cutting into lines	Dialysis, OR, HVAC, ICU, X Ray, etc

	- Demolition & Excavation	Can cause DEATH to critical patients Infection Control issues Major Cleanup issues
Medical Gases: Oxygen Air Vacuum Nitrous Oxide Nitrogen	- Cutting or disturbing into lines (labeled, unlabeled) - Changing valve positions - Deactivating alarms - Demolition & Excavation	Oxygen, vacuum, air, etc. ICU, OR, Med/Surg. Can cause DEATH to critical patients
HVAC	- Shutting down - Modifying - Changing controls - Cutting into the roof - Producing foul odors near intakes - Cutting into chilled water lines - Obstruct fresh air intake	Temperature is critical in OR, ICU, etc. Infection Control issues Major Air Quality Issues
Fire Alarm and Sprinklers	- ANY modifications - covering or removing smoke heads - Demolition & Excavation - Damage or set off sprinkler heads - Duct work modifications	- Compromising Fire Safety - False Alarms - Floods - Major disruptions and distractions ALL THE ABOVE CAN RESULT IN DEATH
Code Alarms Nurse Call Wander Guards	- Demolition & Excavation - Unplugging - Changing position of switches/breakers	Lack of communicating system can result in patient death or injury

Contractor Room/Space

- Materials will be kept on the job site in the contractors' room or in storage space provided for the contractor by the COTR.
- Any shared space within the storage room(s) must be accessible to the COTR, Police, and Fire Department.
- Corridors are not to be used for storage.
- Contractors will manage the signed space and assure the site is kept clean and safe. Refer to OSHA standards.
- Any disputes or concerns will be directed to the COTR.

Damage by Contractors

- Any damage caused by the contractor's employees is to be reported to the COTR immediately.

Deliveries

- All material deliveries at the loading dock must be coordinated with the COTR. Deliveries of material and equipment are to be made at times when the contractor or subcontractor is available to accept them. The VA will not be responsible for receiving or storing items, and warehouse personnel will not allow deliveries to be unloaded.
- In order to minimize delays and interferences, large deliveries must occur Monday through Friday after 7:30 a.m. and before 2:30 p.m. Weekend and after hours deliveries need to be prearranged with the COTR.

Dress Code

- All personnel must be appropriately dressed for their work. T-shirts or garments with obscene or suggestive messages are not permitted. Personnel found improperly dressed will be asked to leave the facility.

Dust Barriers and Ventilation Requirements

- All dust barriers will be coordinated with the COTR before installation.
- Dust barriers are needed to protect occupied areas on any portion of the construction project that has the potential to generate dust.
- The barriers must be smoke resistive and non-combustible. When barriers are part of a smoke or fire barrier, the construction barriers must be equivalent.

Emergency Preparedness Notification

- Contractors are to post the “VA Emergency Guidebook” in a conspicuous spot for all construction personnel to review. Contraction personnel are to be trained on the postings prior to beginning work and as the project progresses.
- The guidebook lists all emergency phone number and explains what to do in the case of an emergency. Such as; bomb threat, workplace injuries, emergency preparedness, hazardous materials & spills, tornado procedures, fire plan, and utility & equipment failures. A copy of the guidebook is available from the COTR.

Elevator Usage

- Contractors shall not hold or block from use any public elevators in any building unless authorized by the COTR.
- The COTR will define which elevators shall be used and the times for moving materials and waste to and from the site(s).

Equipment Safety

- Ladders are not to be left unattended in public areas during breaks and lunch hours. Ladders shall be laid down and placed out of the traffic areas during these periods.
- No tools, carts, ladders or other equipment are to be left unattended outside a secured area.
- Yellow safety barricades must be used when working in public areas.
- Use of hospital equipment is not permitted.

Equipment and Supplies

- Caution must be used with all flammable materials, i.e., adhesives, thinners, varnishes, etc.
- All paint shall be low odor latex paint. The contractor will use odor reducing agents in all paints and solvents. Ventilation will be required if toxic or foul smelling materials have to be applied.
- Only a one-day supply of paints, materials and gas cylinders is permitted outside an approved storage area.

Fire Alarm System

- Care must be exercised to prevent the accidental tripping of smoke detectors and fire alarms.
- Notify the COTR of your activities and location while performing work in the hospital.
- Cover and protect the smoke alarms when raising dust or creating smoke. Remove plastic bags around smoke detectors upon completion of the work and at the end of each workday.
- Notify the COTR immediately if the alarm is tripped.

Hazardous Materials and Waste

- A listing of all hazardous materials that will be used on the job and their material safety data sheets (MSDS) will be available on site for COTR review.
- Ant excess or used chemicals will be removed from the hospital promptly and properly disposed of by the contractor in accordance with federal, state and local regulations.
- Do not store excessive amounts of flammable or combustible materials on the job site. A safe location to store these materials will be provided by the COTR.

Heavy Lifting

- Hoisting heavy materials/items require prior review by the COTR.

Hospital Fire Plan R-A-C-E

- Fire Plan - There is no difference between a fire drill and an actual fire.
- Make sure you know where the pull stations are in the areas you are working.

- If you are in the area of the fire:
  - **R** Rescue anyone from the area if necessary
  - **A** Activate/Pull the nearest Pull Station
  - **C** Contain the fire by closing all doors in the area
  - **E** Extinguish if possible or Evacuate the area immediately
- If you are NOT in the area of the fire:
  Construction Workers are to cease activities, stay in place, and wait for further instructions or cancellation of the fire drill.
  DO NOT move through the hospital. DO NOT use the elevators or stairwells.

Housekeeping

- Housekeeping in public areas of the hospital will be maintained at the highest level, even while work is on going.
- In secured areas, housekeeping will be performed as needed, but at a minimum at the end of each day.

Hot Work Permits

- Before any cutting, soldering, grinding, welding, etc., is conducted, the contractor or sub-contractor shall obtain permission through a hot work permit. The contractor shall be responsible for obtaining the hot work permits from the COTR.
- Gas and oxygen canisters shall be properly chained and protected and two 10 – pound fire extinguishers shall be present.
- The contractor shall maintain a fire watch during the hot work operations, and 30 minutes after the hot work is completed.

Identification Badges

- The construction personnel will not be required to wear identification badges at this time.

Infection Control

- Prior to all construction activities, infection control procedures must be review and approved by the COTR.
- The construction personnel are to read and follow the directions listed on any Infection Control Precaution sheet posted outside a patient's room. Generally this means permission must be obtained from the nursing staff before entry.
- Temporary walls or dust barriers are required to enclose areas under construction.

- Under some conditions it may be necessary to block return and supply ducts. There shall be no re-circulation of air from a construction areas that will generate dust, smoke or odors to other parts of the hospital.
- Tack pads must be located entrances and exits to the construction area.
- Contractor shall promptly remove any dust tracked outside of construction barriers.
- As a standard precaution assume that any person may carry contagious disease. In order to protect you from these diseases always assume blood; non-intact skin, mucous membranes and other body fluids and excretions are infectious. Do not touch any such materials but contact the COTR immediately. Needle container boxes are provided for the disposal of syringes and other sharps used in the medical center. These must be properly removed and disposed of by hospital personnel.

Interim Life Safety

- The hospital will document whether and to what extent Interim Life Safety Measures (ILSM) will be implemented for each project.
- Any life safety code violations incurred during construction or renovation will result in close coordination with COTR to implement the hospital's Interim Life Safety Measures. JCAHO and NFPA require these measures.
- The Contractor in cooperation with the COTR will ensure ILSMs are employed to temporarily compensate for hazards posed by existing Life Safety Code (LSC) deficiencies or construction activities.
- ILSMs apply to both construction and hospital employees.
- ILSMs will require increased walkthrough inspections by the superintendent/foreman, COTR and Safety Officer.
- Training of construction workers and hospital staff will always be a significant part of ILSM procedure. The contractor, COTR and Safety Official all share responsibility to make sure everyone under increased risk is made aware of the risk and compensating ILSMs.

Life Safety

- Temporary construction partitions of non-combustible materials shall be installed as required to provide a smoke tight separation between the areas undergoing renovation and/or construction and adjoining areas that are occupied by the facility.
- Exits for occupied areas of the building including rooms, suites, corridors and floors shall not be blocked by the construction or by construction materials. Exit may be blocked temporarily if it is unavoidable and adequate alternative measures are provided, such as signage, instructions to occupants and approved by the COTR.
- Existing fire protection systems including fire alarm systems, smoke detection systems, and sprinkler systems shall not be altered except as required for the alteration and/or renovation project. Any alteration to the system shall be coordinated with COTR
- It is the responsibility of each contractor to know exactly where the fire extinguishers and pull stations are in the work area.
- Fire hazard inspections shall be conducted daily by the contractor once construction starts and until the work is turned back over to the facility.
- All temporary electrical wiring and equipment used for construction shall be installed and used in accordance with pertinent provisions of NFPA 70 and National Electrical Code.
- Maintain construction site to permit access to fire department as necessary. Clear building construction areas of obstructions so that all portions are accessible for fire department apparatus and permit emergency egress of patients and other personnel.

Lockout/Tag out

- Lock Out/Tag Out - No contract workers is allowed to change the status/position of ANY switch, valve or any other energy source without prior approval from the COTR. All Lock out/Tag out activities need prior approval before implementation. Any activity requiring a Lockout/Tag out process must comply with the hospital policy.

- All contractors shall comply with OSHA Regulation 29 CFR 1910.147 on Lockout/Tag out procedures.
- Only VA personnel are authorized to shutdown hospital equipment or utilities unless permission is specifically granted.

Material Safety Data Sheets (MSDS)

- MSDS must be provided for any hazardous materials that will be used on VA property.
- MSDS are available for all materials used in the hospital. Contact the COTR for all hospital MSDSs.

Noise

- All core drilling, chipping and hole drilling shall be done at a time and day determined by the COTR in consultation with occupants of the space and adjacent areas.
- Patients, visitors and staff deserve consideration and the quiet enjoyment of their premises. Anyone found being loud, rude or otherwise annoying to the patients, their guests or hospital staff would be asked to leave the hospital.
- All work activity within occupied portions of the hospital shall be accomplished with minimal disruption to the patients, physicians, visitors and staff.
- Playing of radios, tapes and CD players is not permitted in any occupied area. “Walkman” radios/tapes and CD players are not permitted anywhere in the hospital.
- The playing of radios, tapes and CD players are permitted in vacant areas but shall not be heard outside the vacant area.

OSHA Compliance

- All contractors are subject to Occupational Safety and Health Administration (OSHA) regulations. The contractor is expected to enforce and comply with these standards in the performance of their work. OSHA regulations can be found in Chapter 29 of the Code of Federal Regulations (CFR). Failure on the part of any contractor or their employee to comply with these standards and/or conduct their work in a safe fashion will result in an interruption in the work schedule for which the contractor will be solely responsible.

Parking

- COTR will designate contractor employee parking areas. Contractors may not block fire lanes or other roadways.
- Contractor to coordinate parking and obtain parking permits from the COTR.

Patient/Visitor Privacy

- No construction personnel are allowed to review, acknowledge or move any patient information or records.

Personal Protective Equipment

- There are many situations that require specific personal protective equipment for worker safety according to OSHA. It is the responsibility of the individual contractor to know when it is to be used and is responsible to wear them.

Posting and Training

- The field superintendents/foremen are to post the following hospital specific documents for all construction employees to read; Construction Commandments, VA Emergency Guidebook and Hospital Smoking Policy.

- Each field superintendent/foreman is responsible for construction personnel working under his/her supervision. This person shall make sure each employee working on the site has been trained on the Construction Commandments; as well as, other posted information.

Restroom Usage

- Construction personnel shall use the public restrooms and shall not use restrooms in occupied areas.

Request for Information

- All request for assistance, coordination and information shall be done through the COTR.
- Address: COTR (Engineering Service)
  Edward Hines Jr. VA Hospital
  5th & Roosevelt Roads
  Hines, IL 60141
- Phone No. (708)202-8387, ext. 21145
- Fax No. (708)202-2167

Safety Regulations

- Contractors are expected to comply with all Occupational Safety and Health Administration (OSHA) regulation, 29 CFR 1926 and 1910.
- Appropriate job signs and barriers are in place to prevent occupants from straying into the construction area.
- Stairwell doors can not be propped open or blocked at any time. Equipment cannot be stored in the stairwells.
- All contractors shall close doors to construction area. All doors shall be locked when not under contractor direct supervision.
- All contractors are encouraged to frequently review these guidelines with their employees and subcontractors on site (e.g., during weekly ToolBox Safety Meetings).
- All contractors and their subcontractors are responsible for complying with these guidelines, specification section 01010, and OSHA rules and regulations.

Security of Construction Areas

- Before beginning work or a project, all contractors shall check in with the COTR. The contractor will supply the following information: scope of work, authorization, duration, and any pertinent information that is required.
- Contractor to use VA supplied locks; cylinders and keys allowing access to the construction area.
- The COTR, Facilities Engineering, Safety Office and Police must have be able to access the construction area as needed to perform their assigned responsibilities.
- Two evacuation routes from the worksite must be maintained at all times.
- Contractors may lock up their personnel tools, etc., with personal locks.

Shutdowns/Connections to Utilities and Building Systems

- All connections, tie-ins, or alterations to the building life safety components and utility systems must be performed with COTR coordination and approval at least three week prior to the date requested.

Smoking

- The Smoking policy of the hospital is no smoking with 50 feet of the building and only in areas designated for smoking. All construction employees must comply with this policy. Any construction employee not complying with this policy will be asked to leave the facility grounds for the duration of the project.
- Construction superintendents/foremen are expected to enforce this smoking policy.

Stop Work

- The hospital safety officer and the COTR have the Director's authorization to stop work whenever conditions pose an imminent threat to life and health or threaten damage to equipment or buildings.

Subcontractors

- The general contractor is responsible for obtaining and submitting signed "Field Supervisors/Foremen Agreement" from each of subcontractors working in the hospital. A subcontractor will not be paid until the COTR has received the signed agreements.
- The COTR reserves the right to reject any subcontractor proposed or working on a project for just cause.
- An on-site construction employee must be designated "In Charge" at all times the contractor is on site.

Traffic Control

- Contractor shall provide trained personnel and equipment, signage, barricades, etc., to regulate traffic whenever construction operations affect traffic patterns.

Trenching and Digging

- OSHA regulations must be followed during trenching operations.

Waste

- Trash, combustible waste and excess construction materials must be removed daily to prevent accumulation. Contractors must arrange for the removal of their debris and waste with the COTR.
- Contractor shall use their Dumpster. Coordinate dumpster location with the COTR.
- The contractor is encouraged to contact and utilize the hospital's recycling program for the disposal of recyclables.
- The contractor is expected to comply with all environmental regulations.

Wall and Floor Penetrations

- Prior to making any penetrations in walls, floors or ceilings, it is the contractor's responsibility to identify fire and smoke rated systems.
- The contractor shall have the COTR inspect and approve all floor and wall penetration.
- All wall and floor penetrations must be located, marked and sealed by the contractor responsible for the penetration.
- All repaired penetrations on rated systems must be completed using a fire rated material matching the rating of the system and must inspected by the COTR before ceiling tiles are replaced or area is concealed.

IF THERE IS ANY QUESTION REGARDING ANY OF THE INFORMATION ON THIS DOCUMENT, IMMEDIATELY CONTACT THE COTR TO RESOLVE ISSUES PRIOR TO WORK COMMENCEMENT.

Company:_____

Receipt Acknowledged:_____

Signature:_____

Date:_____

Infection Control Risk Assessment for Construction / Renovation Projects	
Project Name: 8th Floor Acute Care	Project Number: 578-07-126ES
Project Planner:	Extension:
Building Number: 200	Floor(s): 8th
Project start date:	Projected completion date: / /

	Construction Activity		Infection control risk group
	TYPE A: Inspection, non-invasive activity, low noise, no vibration DUST LEVEL Low		GROUP 1: Low office areas, FMS areas, all non-patient care areas.
	TYPE B: Small scale, short duration, low-moderate noise, low-moderate vibration DUST LEVEL: Moderate to High		GROUP 2: Medium All other patient care areas i.e. ultrasound, Rehab, Occupational Therapy.
	TYPE C: Requires more than one work shift to complete, low-moderate noise, moderate–high vibration DUST LEVEL Moderate to High		GROUP 3: Medium/High ED, Radiology/MRI, , , admissions, food service areas, laboratories.
	TYPE D: Major demolition and construction activities Requiring consecutive work shifts, moderate-high noise, moderate-high vibration DUST LEVEL High		GROUP 4: Highest Operating rooms, SPD ICU's Outpatient areas, oncology anesthesia, post anesthetic recovery all scope areas, Pharmacy, Renal Dialysis

Project Class Determination Matrix

Construction Activity → **Risk Level ↓**	**Type "A"**	**Type "B"**	**Type "C"**	**Type "D"**
Group 1	**I**	**II**	**II**	**III**
Group 2	**I**	**II**	**III**	**IV**
Group 3	**I**	**III**	**III**	**IV**

Group 4	III	IV	IV	IV
Contractors Actions by Project Class				
CLASS I	1. Execute work by methods to minimize raising dust from construction operations. 2. Immediately replace any ceiling tile displaced for visual inspection.	3. Contain construction waste before transport in tightly covered containers. 4. Emergency Preparedness training/posting/ID card.		
CLASS II	1. Provide active means to prevent air-borne dust from dispersing into atmosphere. 2. Water mist work surfaces to control dust while cutting. 3. Seal unused doors with duct tap	4. Block off and seal air vents. 5. Wipe surfaces with disinfectant. 6. Contain construction waste before transport in tightly covered containers. 7. Emergency Preparedness training/posting/ID card.		
CLASS III	1. Isolate HVAC system in area where work is being done to prevent contamination of the duct system. 2. Complete all critical barriers before any work begins. 3. Maintain negative air pressure within work area utilizing HEPA equipped air filtration units. 4. Provide dust mat at entrance and exit of work area.	5. Contain construction waste before transport in tightly covered containers. 6. Wet mop or vacuum with HEPA filtered vacuum before leaving work area. 7. Cover transport receptacles or carts. Tape covering. 8. Emergency Preparedness training/posting/ID card.		
CLASS IV	1. Isolate HVAC system in area where work is being done to prevent contamination of the duct system. 2. Complete all critical barriers before any work begins. 3. Maintain negative air pressure within work area utilizing HEPA equipped air filtration units. 4. Provide adhesive walk-off mat with Provide dust mat at entrance and exit of work area. In the anteroom at entrance and exit of work area. 5. Seal holes, pipes, conduits and punctures appropriately. 6. Vacuum the entire work area with HEPA vacuums or wet mop with disinfectant at the completion of project.	7. Do not remove barriers from work area until competed project is thoroughly cleaned by housekeeping and inspected by the Infection Control Department Safety Section and Engineering Service. 8. Remove barrier materials carefully to minimize spreading dust and debris associated with construction. 9. Contain construction waste before transport in tightly covered containers. 10. Cover transport receptacles or carts. Tape covering. 11. Remove isolation of HVAC system in areas where work was performed at the end of the project. 12. Emergency Preparedness training/posting/ID card.		

Projects Classification _____ Date_____

Project Planners signature_____

Contractor's signature_____

Onsite construction Supervisor signature _____